

## REMARKS

Claims 1-11 are currently pending in the application. By this amendment, claims 1 and 3-7 have been amended. The foregoing separate sheets marked as "Listing of Claims" show all the claims in the application, with an indication of the current status of each.

Applicant thanks Examiner for the courtesy and helpfulness provided during the telephone interview of October 2, 2008. This amendment makes the substance of the interview or record in this case.

### Claim Amendments

Further to Examiner's suggestions presented during the interview, the subject matter of claim 1 has been rewritten to recite the various functions that are carried out by the apparatus of the invention in terms of "...means for..." statements. Applicant submits this amendment does not add any new matter, being essentially a rearrangement of the same elements. Claim 6 has been amended in a similar manner.

Claim 7 has hereby been amended to precisely recite how the camera is used in the method of the invention, i.e. it is used to generate a digital image of the product whose weight and price are to be calculated, and the digitized image is used to identify the product by type and to determine the volume of the product. Applicant submits that this does not add any new matter to the application, as the application as filed describes these features on page 3, at lines 10-12. Amended claim 1 also recites that the one or more cameras are for generating a digitized image of the product and this amendment likewise does not add new matter due to the support found in this section of the application as filed.

### Claim Rejections: 35 USC § 103(a)

Claims 1-11 stand rejected under 35 USC § 103(a) as unpatentable over Wargon (US 2004/0153283) in view of Arnarson et al. (US 5,184,733, hereinafter "Arnarson"). This rejection is traversed.

The present invention provides an apparatus and method for determining the weight of an object without using a scale. The weight can then be used to calculate the price of the object. Instead of using a scale, the invention uses one or more images generated by a camera to 1) identify a product by type; and 2) determine the volume of the product. The volume is used to

calculate the weight of the product by referring to a table of known product densities, and the price can then be calculated as a function of the price/weight ratio. This process is faster than the usual practice of weighing an item and entering a price code. The digitized photographic images provided by a camera are central to the present invention.

Neither of the cited references uses or describes the use of a digitized photographic image generated by a camera to identify a product by type. Therefore, a combination of the two cannot include using a digitized photographic image generated by a camera to identify a product by type. Wargon does not use a camera at all, and in fact is not directed to determining the weight, cost or type of an item. Rather, Wargon teaches a relatively sophisticated technique (using sensor bars, displacement detectors, etc.) for determining the weight or cost of segments of an irregularly shaped pre-identified item prior to cutting the item, in order to enable the user to make a suitable plan for cutting the item in a desired manner, e.g. in a way that a customer requests or desires. Arnarson uses a camera but also does not identify objects by “type”. Further, Arnarson requires the use of a mirror with the camera. Together, the mirror/camera combination is used to simultaneously record a top and profile view of an object on a conveyor belt, in order to obtain several consecutive cross-sectional images of the object. The cross-sectional images are used to determine only the volume, form and weight of the object (see the title, lines 1-2 of the abstract, line 65 of column 1, line 45 of column 2, etc.). There is no reference in Arnarson to using the cross-sectional images to determine the type of object that is scanned. The only mention of “type” is in reference to the “ $\beta$  factor”, a factor that is used, together with the width and height (determined by the scanning process) to calculate a cross-sectional area of the object (see equation at the bottom of column 2). The first line of column 3 states that “The value of  $\beta$  is determined by the type of fish or object...”. Thus, the value of  $\beta$  depends on the type of fish or object, but there is no teaching in Arnarson concerning how the type is ascertained so that  $\beta$  can be determined, and there is no teaching that links identification of object type to the multiple, cross-sectional images provided by the camera/mirror combination.

Examiner states that the test for obviousness is “...not whether the features of a secondary reference may be bodily incorporated into the structure of the features of a primary reference...” but rather “...what the combined teachings would have suggested to one of ordinary skill in the

art.” Applicant submits that indeed, the combined teaching must suggest the invention to one of ordinary skill in the art, whereas a knowledge of Wargon and Arnarson do not. While “bodily incorporation” is not a requirement, neither can a proposed modification or combination of the prior art cause a substantial reconstruction and redesign of the elements shown in the primary reference or change the principle of operation of the prior art invention being modified [In re Ratti, 270 F.2d 810, 123 USPQ 349 (CCPA 1959)] The invention of Wargon is designed to operate by scanning an irregularly shaped object using sensor bars, displacement detectors, etc. to form a series of volume determinations along the length of a known object prior to cutting it. The purpose is to provide an accurate estimate of the volume and/or price of a “slice” of the object, prior to cutting, so that a customer can make an informed decision about which portion of the object he/she wishes to purchase. There is no obvious extension or improvement of Wargon that a camera would or could provide. The addition of a camera to such an apparatus would require substantial reconstruction and redesign to “fit” the camera into the apparatus, as the stated purpose of Wargon is fully satisfied by the invention as designed. Further, the principle of operation (determination of cross-sectional volumes using sensor bars and displacement detectors) would need to change in order for a camera to be of use. Determination of the “type” of object (with or without a camera) is completely unnecessary in Wargon since the object being analyzed is directly in front of the user and can be readily seen and identified by the user and the customer-and in fact must be already identified. The only reason to use the apparatus of Wargon is if a user or customer has already selected an object to be analyzed, and wishes for further specific information (volume and price of a specific “cut”) about the object. Identification of the type of object by the apparatus using a camera (or any other means) would be unnecessary and redundant.

In view of the foregoing, Applicant respectfully requests reconsideration and withdrawal of this rejection.

#### **Other matters**

Claim 5 is hereby amended to recite the word “printer” which was inadvertently left out of previous versions of the claim. Without this recitation, the sentence is incomplete. Applicant submits that this does not add any new matter, a printer being described on page 4 at line 26 of

the application as filed. Claim 5 has also been amended to depend from claim 4 instead of claim 3, as claim 4 (not claim 3) recites the "running total" referred to in claim 5.

Claim 3-5 have hereby been amended to recite "computer terminal" rather than "computer" to accord with the language of claim 1, which recites "computer terminal".

Applicant respectfully requests entry of this amendment and allowance of these amended claims.

### **Concluding Remarks**

In view of the foregoing, it is requested that the application be reconsidered, that claims 1-11 be allowed, and that the application be passed to issue.

Should the Examiner find the application to be other than in condition for allowance, the Examiner is requested to contact the undersigned at 703-787-9400 (fax: 703-787-7557; email: ruth@wcc-ip.com) to discuss any other changes deemed necessary in a telephonic or personal interview.

If an extension of time is required for this response to be considered as being timely filed, a conditional petition is hereby made for such extension of time. Please charge any deficiencies in fees and credit any overpayment of fees to International Business Machines Deposit Account No. 50-0510.

Respectfully submitted,



Ruth E. Tyler-Cross  
Reg. No. 45,922

Whitham, Curtis, Christofferson & Cook, P.C.  
11491 Sunset Hills Road, Suite 340  
Reston, VA 20190  
703-787-9400 (Telephone)  
703-787-7557 (Facsimile)

YOR920030566US1